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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/890,894	07/10/1997	GERARD CHAUVEL	TIF-15767A	5253

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EXAMINER

TRAN, DENISE

ART UNIT	PAPER NUMBER
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2189

DATE MAILED: 08/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

08/890,894

Applicant(s)

CHAUVEL ET AL.

Examiner

Denise Tran

Art Unit

2189

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-15, 17, 19, 34 and 36-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7-15, 17-19, 34, and 37-39 is/are allowed.
- 6) ☒ Claim(s) 36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 07/902,191.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Prosecution on the merits of this application is reopened on claim 36 considered unpatentable for the reasons indicated below:

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 36 is rejected under 35 U.S.C. 102(e) as being anticipated by Inoue, US Patent No. 5,297,267.

As per claim 36, Inoue teaches an apparatus, comprising:

a first processor comprising a core (CPU 1-0, fig 1c), a program memory

(Instruction Control Unit 5-0, fig. 1c) and a local memory (cache 4-0, fig. 1c);

a second processor comprising a core (CPU 1-1, fig 1c), a program memory

(Instruction Control Unit 5-0, fig. 1c) and a local memory (cache 4-1, or 4-1, 5-1 fig. 1c);

a synchronizing circuit (memory control unit 2, fig. 1c) for coupling said core of said first processor to said core of said second processor; and

one and only one common memory (main storage unit 3, fig. 1c) coupling said local memory of said processor to said local memory of said second processor.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 36 is rejected under 35 U.S.C. 102(b) as being anticipated by Devlin et al., U.S. Patent No. 4,212,057 (hereinafter Devlin).

As per claim 36, Devlin (4,212,057) teaches an apparatus, comprising:
a first processor (12) comprising a core, a program memory and a local memory (32);
a second processor (14) comprising a core, a program memory and a local memory (38);
a synchronizing circuit (see abstract) for coupling said core of said first processor to said core of said second processor; and
one and only one common memory (40) coupling said local memory of said processor to said local memory of said second processor.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kabemoto et al. (USP: 6,108,755) (hereinafter Kabemoto) in view of Song et al (USP: 5,289,588) (hereinafter Song).

As per claim 36, Kabemoto teaches an apparatus comprising:

a first processor (processor module 10, fig 1a) comprising; core (cpu 18, fig 1a), a program memory (configuration register 44 (fig 5) in the processor module 10), and a local memory (fig. 1A, local storage 20);

second processor (another processor module 10, fig 1a) comprising : a core (cpu 18, fig 1a), a program memory (configuration register 44 (fig 5) in the processor module 10), and a local memory (fig. 1A, local storage 20);

a synchronizing circuit (connection unit 28, fig. 1a and means for generating interrupt, claim 1); and

a common memory (shared storage unit 26, fig 1a) coupling said local memory of said first processor to said local memory of said second processor.

It is noted that Kabemoto does not explicitly mention "one and only" common memory being coupled between the noted two processor's respective local memories; instead, Kabemoto's system discloses multiple shared memories coupled to each processing module's local memory. One of ordinary skilled artisan would have readily limited the number of common memory to a singular (one) common storage module to reduce the overall system size and/or to utilize prioritized access scheme in a multiprocessor environment.

As an evidence to well known prioritized access scheme based on singular common memory system, Song et al discloses multiprocessor environment employing one and only one common storage system to permit high priority access (exclusive access requests of critical sections by each of the processors) while limiting less important access requests to maintain high speed of operation in a single shared memory system.

Therefore, one of ordinary skilled artisan would have readily incorporate singular common memory option to selectively serve multiple access requests based on access request priority to ensure high speed operation in a singular common memory utilized in a multiprocessor environment.

8. Claims 7-15, 17, 19, 34, and 37-39 are allowable over the prior art of record.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Denise Tran whose telephone number is (571) 272-4189. The examiner can normally be reached on Monday, Thursday, and Friday from 9:00 a.m. to 5:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Kim, can be reached on 571-272-4182. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Denise Tran

8/21/05